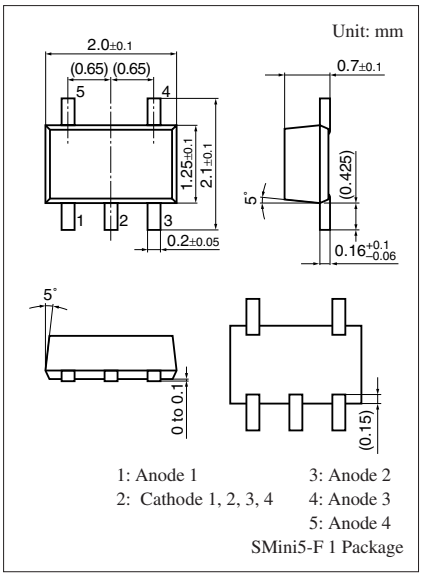
MA5J002E

Silicon epitaxial planar type

For high speed switching circuits

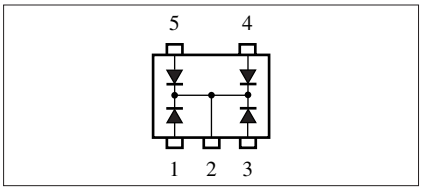
■ Features

- Includes 4 elements of cathode common connection
- Parts reduction is possible
- Ideal for surge voltage absorption



Marking Symbol: M5B

Internal Connection



■ Absolute Maximum Ratings $T_a = 25°C$

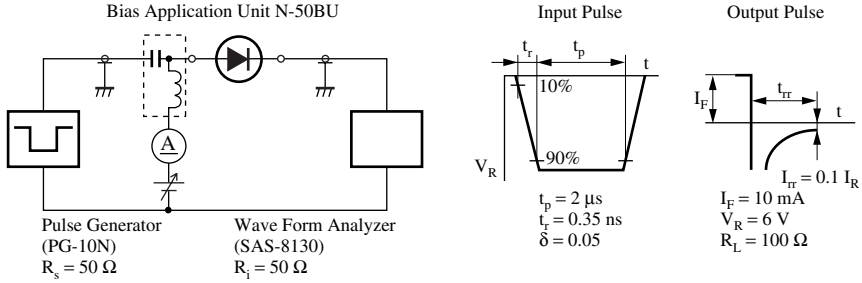
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	80	V
Maximum peak reverse voltage	V_{RM}	80	V
Forward current *1	I_F	100	mA
Peak forward current *1	I_{FM}	225	mA
Non-repetitive peak forward surge current *1, 2	I_{FSM}	500	mA
Junction temperature	T_j	150	°C
Operating ambient temperature	T_{opr}	−25 to +105	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗1: Value in single diode used.
∗2: t = 1 s

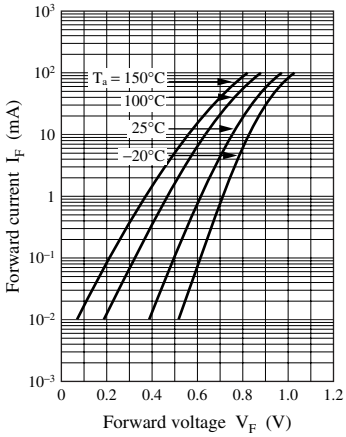
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			1.2	V
Reverse voltage	V_R	I_R = 100 µA	80			V
Reverse current	I_R	V_R = 75 V			100	nA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz			2	pF
Reverse recovery time *	t_{rr}	I_F = 10 mA, V_R = 6 V I_{rr} = 0.1 I_R , R_L = 100 Ω			3	ns

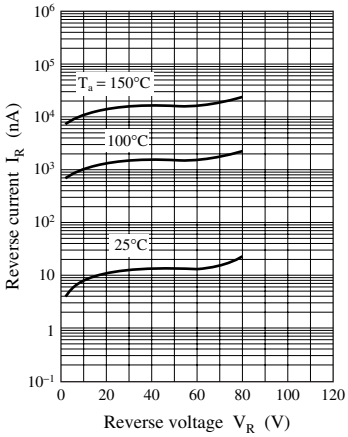
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring method for diodes.
2. Absolute frequency of input and output is 100 MHz.
3. ∗: t_{rr} measurement circuit



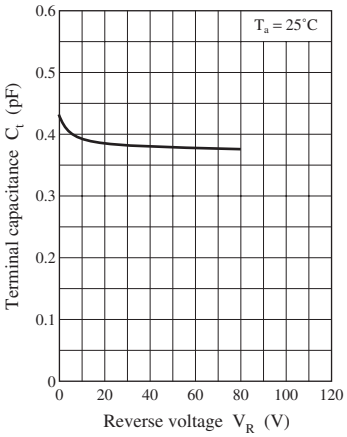
I_F — V_F



I_R — V_R



C_t — V_R



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